SCIENCE NEWS

Science Service, Washington, D. C.

THE PROPOSED INTERNATIONAL TELECOMMUNICATIONS UNION

LEADING all nations in an effort to bring order to the confused system of allocation of radio frequencies, the United States, through the State Department's Special Committee on Communications, held meetings at Washington, D. C., under the direction of Dr. J. Howard Dellinger, of the National Bureau of Standards, on August 11 and 12 at which the first steps were taken towards drawing up proposals for the postwar organization of the radio channels. The final proposals, representing the combined thinking of both industry and government, will be submitted by the United States for the consideration of all nations at a postwar International Telecommunications Conference. Out of this conference may come a streamlined International Telecommunications Union.

"New treaties and new regulations governing communications will be necessary immediately after the war if we are to make room in the radio spectrum for the many wartime technical advances in radio, television, FM and aviation, which brought with them new radio services such as radar," according to Francis Colt de Wolf, chief of the Telecommunications Division of the Department of State.

The purpose of this meeting was to discuss with representatives of industry some of the purely technical problems involved in allocating radio frequencies in preparation for the conference immediately after the war. Six committees will be organized at the meeting to study specific problems, and the combined reports of these committees will form the basis for the U. S. Government's recommendations for the modification of the International Telecommunications Convention in Madrid in 1932, and the Cairo General Radio Conference of 1938.

Mr. Wolf states that the radio spectrum will be allocated by services, rather than by countries. The same part of the radio spectrum will be used in all nations for the same type of service. All aviation communication will be done within certain specified frequency ranges, maritime communications will use other ranges, amateur or "ham" broadcasting will be assigned still other renges, and so on through all the services.

The amount of spectrum space turned over to any one service will depend upon the importance and extent of the service. If, for example, it should be decided that one airline communications organization (owned and operated by other airlines in the country) should represent this nation in postwar air commerce, much less spectrum space would be required to fulfill its needs than if many airlines were to operate their own transmitters on a competitive basis. The location in the spectrum, high or low frequency, will depend upon the characteristics and needs of each service. For example, the frequencies between 4,000 kilocycles and 25,000 kilocycles are particularly useful for long distance communication.

Consideration will also be given to revamping the Bern Bureau, the organization in Switzerland that now acts as an international registering agency to which governments go to register certain sections of the radio spectrum for use of particular services within their borders. A board, as part of an International Telecommunications Union, may be set up to pass upon applications by nations for radio frequencies to make certain that they conform to agreed-upon international regulations, and to handle the many diverse details that require attention continuously between conferences.

Mr. de Wolf pointed out that each country must retain the sovereign right to regulate its own communications, nevertheless agreements between nations are absolutely necessary in order to permit standardization and increase the effectiveness of telecommunications. This would mean that radio stations in South America would not be allowed to disrupt communications between San Francisco and Chicago, as is quite possible now. Also with the frequency range for FM radio and other services the same all over the world, an FM receiver that works in the United States would work anywhere alse—ROBERT N. FARR.

ITEMS

MIDSUMMER sunlight has a six-fold advantage over midwinter sunlight in concentration of ultraviolet rays having effects on human health, as measured at the National Bureau of Standards by Dr. W. W. Coblentz and R. Stair. Measurements were made under all kinds of weather conditions over a period of three and a half years, with an ultraviolet intensity meter in combination with automatic integrating and recording apparatus. Dr. Coblentz has also developed sun-tanning tests that corelate these instrumental measurements with the psysiological reaction of the untanned human skin, which are expected to be of interest to physicians.

INFANTILE paralysis cases throughout the country continue to increase, a total of 738 being reported to the U. S. Public Health Service for the week ending July 29, an increase of 170 over the number reported for the previous week. This is the highest number reported for any week since the Public Health Service began keeping such records over 15 years ago. A total number of 3,060 cases have already been reported for this year, as contrasted with 2,316 reported at this time last year. New York State reported an increase from 153 cases for the week ending July 22, to 237 for the week ending July 29: the number in New York City doubled those of the previous week, reaching a total of 50. In Kentucky the number of cases increased from 77 to 79; in Pennsylvania from 56 to 64; in Ohio, from 14 to 40; in Michigan, from 24 to 30; in Virginia, from 30 to 39; in Indiana, from 10 to 20, and in California, from 11 to 13. The number of cases in the South, however, was lower. North Carolina dropped from 62 to 57; Texas from 9 to 8, and for the District of Columbia from 8 to 4.